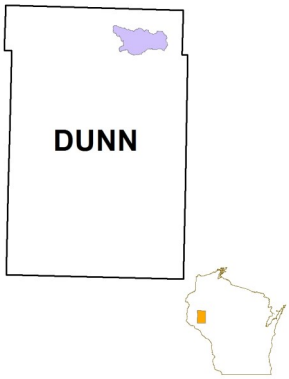


Stream Classification Report

HAY CREEK

WBIC: 2084900
Dunn County
Sand Creek and Wilson Twp.
Category 4 Trout Fishing Regulation
Class II Trout Stream

STREAM DESCRIPTION:
Length: 11.2 miles of Class II trout water.
Mean Stream Width: 3.1 m
Gradient: 3.4 m/km
Base Flow Stream Discharge: 0.291cms
Stream Character: Coldwater
Stream Order: 4
Habitat Rating: Fair to Good
IBI Rating: Good to Very Poor
Ecoregion: North Central Hardwood Forests

STOCKING RECORDS: Hay Creek is not stocked currently. Brook trout yearlings were stocked until 2003, then discontinued.

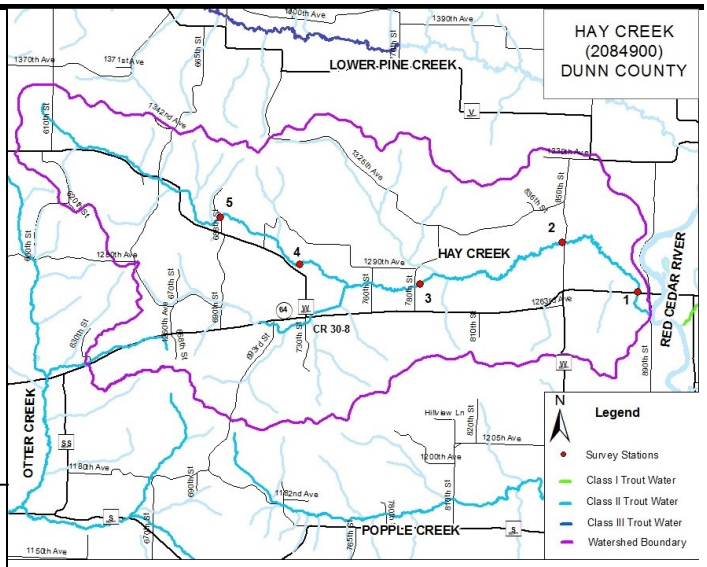
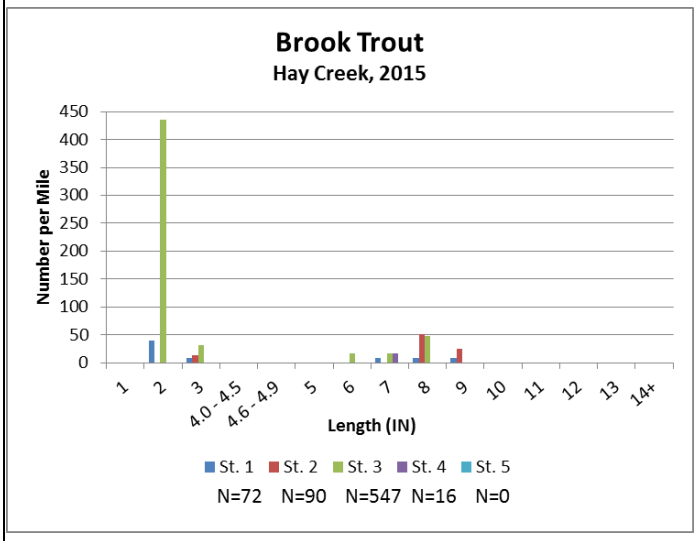


Figure 1 Length distribution



HAY CREEK is a small spring-fed tributary to the Red Cedar River. It is located in north east Dunn County and flows in an easterly direction to the Red Cedar River near the Village of Sand Creek. The Hay Creek watershed consists of a mix of hilly woodlands in the headwaters, and wetland and agricultural land in the lower portions. Fish habitat rankings were mainly Good in Hay Creek. A Fair ranking was found at Station. 3. Bank erosion is light but the substrate has a high percentage of fine sediments. Suitable cover for adult trout is fairly common in Hay Creek.
Creek 30-8 (WBIC:2085100) is a Class II tributary to Hay Creek**.**

FISHERY:
Trout were found in all stations, except for station 5 during the 2015 survey of Hay Creek (Table 1). Brook trout ranged in length from 2.1 to 9.7 inches (Fig. 1). The average length of the adult trout sampled was 8.3 inches. Two year classes were apparent in this survey, young-of-year and carry-over adults. 2015 was a good reproductive year for trout in west– central Wisconsin. Juvenile trout were found at stations 1-3, with high to moderate numbers at station 3 (79 percentile). No reproduction was evident at stations 4 or 5. A low abundance of adult brook trout were found at stations 1-4 (15-43 percentile). Creek 30-8 is also a Class II brook trout stream with low levels of juvenile brook trout present.

Other fish species found in Hay Creek are not indicative of a high-quality trout stream (Table 2), however the moderate number of brook trout sampled increased the quality rating at Station 3. The Coldwater Index of Biotic Integrity (IBI) rating was Good at Station 3. Station 5 had no fish at all and therefore rates Very Poor. Some environmental degradation has occurred reducing the biotic integrity of the stream. Pastured wetlands and beaver activity are some of the impacts affecting Hay Creek, warming the water and increasing sediments.

FUTURE MANAGEMENT:
Hay Creek is currently classified as a Class II brook trout stream. This classification is appropriate based on this survey. Hay Creek holds a low density brook trout fishery. Reproduction has been sporadic, except when conditions are right, moderate recruitment occurs which provides carry-over of adult

fish. Improvement is needed in the thermal regime of Hay Creek in order to produce a stable sport fishery. Beaver dams and over grazing may be a problem at times. Best Management Practices should be encouraged in the watershed. Rotational monitoring should continue using the wadable cold water stream protocol to assess the trout populations and species composition.

Table 1 Abundance of brook trout (number per mile) at five stations on Hay Creek.
(-) indicates stations that were not surveyed.

Year	St. 1		St. 2		St. 3		St. 4		St. 5	
	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult	Juv.	Adult
1961	0	0	0	0	0	6	0	0	0	53
2001	0	0	0	0	48	0	113	16	-	-
2009	-	-	0	53	-	-	-	-	-	-
2015	48	24	13	77	467	80	0	16	0	0

Table 2 Relative abundance of fish species found in Hay Creek in 2015.
(-) indicates species that were not targeted.

Species	St. 1	St. 2	St. 3	St. 4	St. 5
Brook Trout	9	7	34	1	0
Brook Stickleback	-	-	22	-	0
Central Mudminnow	-	-	32	-	0
Creek Chub	-	-	3	-	0
Johnny Darter	-	-	1	-	0
Lamprey spp (Ammocoete)	-	-	5	-	0
Mottled Sculpin	-	-	3	-	0

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